REMARKS

I. Status of the Application

At the time of the Action, Claims 1-4 and 10-13 were pending, Claims 5-9 and 14-16 having been withdrawn in response to an election of species requirement. The Action warns that Claims 10-13 are deemed to be a "substantial duplicate" of Claims 1-4. Claims 1 and 10 stand rejected under Section 102(b). Claims 2-4 and 11-13 were rejected under Section 103(a).

Claims 1 and 10 have been amended hereinabove to recite the subject matter of, respectively, Claims 3 and 12, which have been canceled.

The issues raised in the Action are addressed hereinbelow.

II. The Substantial Duplicate Finding

Applicant respectfully disagrees with this finding. Claim 1 recites, in pertinent part, that the vertical conveyor is "positioned adjacent the wafer inlet of each processing station," whereas Claim 10 recites that the vertical conveyor is "mounted to the processing station and positioned adjacent the wafer inlet." Inasmuch as Claim 1 does not require that the vertical conveyer be required to be mounted to the processing station, it covers different subject matter than Claim 10 and is, therefore, not a substantial duplicate thereof. As such, Applicant respectfully requests that this finding be withdrawn.

III. The Art Rejections

The Action rejects Claims 1 and 10 as anticipated under Section 102(b) by Japanese Patent No. 11-145243 (JP243). Claims 3, 4, 12 and 13 stand rejected under Section 103(a) based on JP243 in view of U.S. Patent No. 6,183,186 to Howells et al. (Howells). Inasmuch as Claims 1 and 10 now recite the subject matter of original Claims 3 and 12, Applicant's remarks below will focus on the rejections of Claims 3 and 12.

In rejecting Claims 1 and 10, the Action states that JP243 discloses a device for conveying wafer cassettes along a plurality of wafer processing devices aligned along an axis. The device is deemed to comprise:

a horizontal conveyor (111) positioned adjacent to and below the plurality of process devices;
a vertical conveyor (102) for raising the wafer cassette from the horizontal conveyor to the process device load port;
a controller for automatically moving the various components of the overall system automatically.

The Action concedes that JP243 fails to disclose "an individual loading elevator for each process device. The Action then cites Howells as teaching a process device (12) with an individual loading station (10) comprising:

a housing;
an inlet in said housing for accepting transported wafer cassettes;
an elevator (20) for lifting and lowering wafer cassettes (16);
said elevator having two guides (102) mounted on the walls of said housing;
wherein said guides are actuated by a ball and lead screw assembly.

Based on these findings, the Action concludes that the subject matter of original Claims 3 and 12 is unpatentable under Section 103(a).

In response, Applicant respectfully directs the Examiner's attention to amended Claims 1 and 10, reproduced below:

1. An apparatus for conveying a wafer container to a plurality of wafer processing stations, said processing stations being aligned in an x-axis direction and having a wafer inlet, said apparatus comprising:
a horizontal conveyor positioned adjacent and below the wafer inlet of each processing station and extending in the x-direction;
a vertical conveyor positioned adjacent the wafer inlet of each processing station and being configured to convey the wafer

container substantially vertically along a z-axis between a position on the horizontal conveyor and the wafer inlet; and

a controller operably associated with said horizontal and vertical conveyors to control the position of the wafer container;

wherein said vertical conveyor comprises:

a hollow housing positioned forward of the wafer inlet having side walls;

a pair of vertical translation members located on respective housing side walls; and

a pair of gripping arms mounted for vertical movement on respective vertical translation members and extending toward each other.

10. An apparatus for conveying a wafer container to a plurality of wafer processing stations, said processing stations being aligned in an x-axis direction and having a wafer inlet, said apparatus comprising:

a horizontal conveyor positioned adjacent and below the wafer inlet of each processing station and extending in the x-direction;

a vertical conveyor mounted to the processing station and positioned adjacent the wafer inlet of each processing station and being configured to convey the wafer container substantially vertically along a z-axis between a position on the horizontal conveyor and the wafer inlet; and

a controller operably associated with said horizontal and vertical conveyors to control the position of the wafer container;

wherein said vertical conveyor comprises:

a hollow housing positioned forward of the wafer inlet having side walls;

a pair of vertical translation members located on respective housing side walls; and

a pair of gripping arms mounted for vertical movement on respective vertical translation members and extending toward each other.

Each of these claims recites, *inter alia*, (a) a pair of vertical translation members located on respective housing side walls and (b) a pair of gripping arms mounted for vertical movement on respective vertical translation members and extending toward each other. Applicant does not

find a pair of gripping arms that extend toward each other in Howell, and the Action does not specify any structure of Howell that is intended to satisfy this claim element. Because this claim element is absent from the cited references, the Action has failed to provide a proper *prima facie* rejection under Section 103(a).

Moreover, Applicant respectfully submits that it would not have been obvious to the ordinarily skilled artisan to modify the Howell device to include a pair of gripping arms that extend toward one another. The Howell device is not configured to receive a wafer cassette from an automatic conveyor; instead, it is configured to receive a manually loaded wafer cassette onto its platform 120. The platform 120 supports the entire bottom surface of the wafer cassette (see Figures 2 and 3 of Howell) and elevates it by lifting from underneath. Such a device could not be used with a typical conveyor, because there is no provision for removing a wafer cassette from the conveyor without interference (*i.e.*, if the platform 120 were used to lift a wafer cassette from a conveyor from underneath, it would interfere with the conveyor).

The device recited in amended Claims 1 and 10 can receive and lift a wafer cassette from a conveyor through the use of two gripping arms that extend toward each other. As shown, for example, in Figures 13-16 of the specification, such a device can receive a wafer cassette from a horizontal conveyor with the gripping arms, lift the cassette, and present the cassette for processing in a processing station. Neither JP243 nor Howell suggests that lifting the wafer cassette and presenting it to the processing station can be achieved or how to achieve it.

In view of the foregoing, Applicant respectfully submits that it would not have been obvious to the ordinarily skilled artisan to conceive the subject matter of amended Claims 1 and 10 based on the teachings of JP243 and Howell. Accordingly, Applicant respectfully requests that this rejection be withdrawn.

IV. Conclusion

Inasmuch as all of the outstanding issues raised in the Action have been addressed, Applicant respectfully submits that the application is in condition for allowance, and requests that it be passed to allowance and issue.

Respectfully submitted,

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